

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Viginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/682,764	10/16/2001	Gerald Burt Kliman	RD-29502	9910	
6147	7590 08/01/2003				
GENERAL ELECTRIC COMPANY			EXAMINER		
PATENT DO	SEARCH CENTER CKET RM. 4A59		NGUYEN	NGUYEN, JIMMY	
PO BOX 8, BLDG. K-1 ROSS NISKAYUNA, NY 12309			ART UNIT	PAPER NUMBER	
•			2829		
			DATE MAILED: 08/01/2003	DATE MAILED: 08/01/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

	Applicati n No.	plicant(s)				
Office Action Summary	09/682,764	KLIMAN ET AL.				
Office Action Summary	Examiner	Art Unit				
The AGAILING DATE Saling and saling and	Jimmy Nguyen	2829				
The MAILING DATE f this communication app Period for Reply	ears In the cover sheet with the c	orresp naence adaress				
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status	i6(a). In no event, however, may a reply be time within the statutory minimum of thirty (30) day, fill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
1) Responsive to communication(s) filed on <u>16 C</u>	October 2001					
	s action is non-final.	,				
3)☐ Since this application is in condition for allowa		osecution as to the merits is				
closed in accordance with the practice under language. Disposition of Claims						
4)⊠ Claim(s) <u>1-40</u> is/are pending in the application.						
4a) Of the above claim(s) is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>1-11, 14 - 35, 38 - 40</u> is/are rejected.						
7) Claim(s) <u>12,13,36 and 37</u> is/are objected to.						
8) Claim(s) are subject to restriction and/or	election requirement.					
Application Papers						
9) The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner. If approved, corrected drawings are required in reply to this Office action.						
12) The oath or declaration is objected to by the Examiner.						
/						
Priority under 35 U.S.C. §§ 119 and 120 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) All b) Some * c) None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No						
3. Copies of the certified copies of the priority documents have been received in this National Stage						
application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.						
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 	5) Notice of Informal I	/ (PTO-413) Paper No(s) Patent Application (PTO-152)				
LS. Patent and Trademark Office						

Application/Control Number: 09/682,764

Art Unit: 2829

DETAILED ACTION

Claim Rejections - 35 USC § 112

- 1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 2. Claims 1 40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The examiner is unclear how id the result signal detected variations in capacitance between the at least two electrically conductive plates representative of core contact?

For the purpose of examination the examiner take the change of capacitance from the first time to the second time between the at least two electrically conductive plates representative of core contact.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 4. Claims 1—11, 14 35 and 38 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Whipple III et al (US 5805664).

Page 3

Application/Control Number: 09/682,764

Art Unit: 2829

As to claims 1, 19, Whipple III et al disclose (figs 1 and 2) a core contact detection method and system comprising:

- (a) positioning at least two electrically conductive plates (270) near at least two respective laminations of a laminated core (130);
- (b) supplying an excitation signal (throughout the processor 250) to the at least two electrically conductive plates (270); and
- (c) using a resulting signal to detect (252) variations in capacitance between the at least two electrically conductive plates representative of a core contact (columns 4 –6).

As to claims 2, 21, Whipple III et al disclose (figs 1 and 2) the method of claim 1 wherein (a) comprises positioning the at least two electrically conductive plates (270) near at least two respective adjacent laminations of the laminated core (130).

As to claims 3, 5, 6, 17, 18, 26, 27, Whipple III et al disclose (figs 1 and 2) the method of claim 1 wherein (a) comprises positioning the at least two electrically conductive plates (270) near the at least two respective laminations of the laminated core (130) along at least one tooth or two (as seen in the figures) of the laminated core.

Application/Control Number: 09/682,764

Art Unit: 2829

As to claim 4, Whipple III et al disclose (figs 1 and 2) the method of claim 3 further comprising moving the at least two electrically conductive plates (270) axially relative to the at least one tooth while repeating (a) (c) and using the plurality of resulting measured signals to detect core contacts.

As to claims 7, 9, 20, Whipple III et al disclose (figs 1 and 2) the method of claim 1 wherein (b) comprises supplying the excitation signal to the at least two electrically conductive plates (270) through a bridge circuit (250).

As to claims 8, 10, 23, Whipple III et al disclose (figs 1 and 2) the method of claim 1 wherein (a) comprises positioning at least three electrically conductive plates or two set (270) near at least three respective laminations of a laminated core (130).

As to claims 11, 14, Whipple III et al disclose (figs 1 and 2) the method of claim 10 wherein each set of electrically conductive plates (270) comprises three electrically conductive plates linearly arranged with respect to at least one of the at least two respective laminations (130).

Application/Control Number: 09/682,764

Art Unit: 2829

As to claims 15, 16, 24, 25, Whipple III et al disclose (figs 1 and 2) the method of claim 14 wherein the sense plates of two of the at least two sets are electrically coupled, wherein (b) comprises supplying the excitation signal (250) to the signal plates (270) of the two of the at least two sets, and wherein (c) comprises obtaining a current signal and voltage signal from the electrically coupled sense plates.

As to claims 28 – 35 and 38-40, Whipple III et al disclose (figs 1 and 2) the method of detecting core contact. Further, In *In re King*, 801 F.2d 1324, 1326 USPQ 136, 138 (Fed. Cir. 1986) it was held that: "Under the principles of Inherency, if a structure in the prior art necessarily functions in accordance with the limitations of a process or method claim of an application, the claim is anticipated." The court added, however, that: "This is not to say that the discovery of a new use for an old structure based on unknown properties of the structure might not be patentable to the discoverer as a process. *In re Hack*, 245 F.2d 246, 248, 114 USPQ 161, 163 (CCPA 1957)."

Application/Control Number: 09/682,764 Page 6

Art Unit: 2829

Allowable Subject Matter

5. Claims 12, 13 and 36, 37 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claims 12, 36, the prior arts of record are fail to disclose the method of claim 11 wherein a first set of the at least two sets of electrically conductive plates comprises a first signal plate and a first pair of baseline plates, wherein a second set of the at least two sets of electrically conductive plates comprises a second signal plate and a second pair of baseline plates, wherein (b) comprises supplying the excitation signal to the first pair of baseline plates, supplying the excitation signal to the second pair of baseline plates, and supplying the excitation signal to the first and second signal plates, and wherein (c) comprises obtaining a fractioned signal of the resulting signals obtained from the first and second pairs of baseline plates, and subtracting a signal resulting from the first and second signal plates from the fractioned signal.

As to claims 13, 37, the prior arts of record are fail to disclose The method of claim 11 wherein a first set of the at least two sets of electrically conductive plates comprises a first signal plate and a first pair of baseline plates, wherein a

second set of the at least two sets of electrically conductive plates comprises a second signal plate and a second pair of baseline plates, and, wherein (b) comprises supplying the excitation signal to a first plate of the first pair of baseline plates, supplying the excitation signal to a first plate of the second pair of baseline plates, and supplying the excitation signal to the first and second signal plates, wherein a second plate of the first pair of baseline plates and a second plate of the second pair of baseline plates are electrically coupled, and wherein (c) comprises multiplying a signal representative of the voltage across the first plates of the first and second pairs of baseline plates, and subtracting the multiplied signal from a signal representative of a voltage across the first and second signal plate.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Nguyen at (703) 306-5858. Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

JN. July 24, 2003 SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800